Abstract

Noise Reduction in a Stereo Receiver

A method to denoise a stereo signal comprising a stereo sum signal and a stereo difference signal, performs a frequency selective stereo to mono blending based on the masking effect of the human auditory system. Therefore, a stereo signal noise reducer, comprising a first filter bank (1) to split the stereo difference signal (l-r) into a plurality of subbands, respective first multipliers (2_0, ..., 2_N) to weight each of the subbands of the stereo difference signal with a respective corresponding control signal (C_0, ..., C_N), and a first adder (3) to sum all weighted subbands of the stereo difference signal (l-r) to build a frequency selective weighted stereo difference signal (diff), within which a number and width of the subbands obtained via the first filter bank (1) are choosen according to the properties of the human auditory system, further comprises a weighting factor determination unit which determines a respective control signal (C_0, ..., C_N) frequency selective based on the masking effect of the human auditory system.

(Fig. 1)